

ABSTRACT OF THE DISCLOSURE

A process for forming a local interconnect includes applying a layer of metal over a semiconductor layer. A layer of metal silicide is formed over the layer of metal. The layer of metal silicide is patterned to define the boundaries of the local interconnect. The metal silicide is reacted with the layer of metal to form a composite structure. The composite structure includes the metal silicide, another metal silicide formed as silicon from the metal silicide reacts with the underlying layer of metal and an intermetallic compound of the metal from the layer of metal and metal from the layer of metal silicide. The unreacted layer of metal is removed with the composite structure remaining as the local interconnect.